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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,721	01/10/2001	Ursula Murschall	00/001 MFE	8369

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PROPAT, L.L.C.  
425-C SOUTH SHARON AMITY ROAD  
CHARLOTTE, NC 28211-2841

EXAMINER
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RICKMAN, HOLLY C

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/757,721

Applicant(s)

MURSCHALL ET AL.

Examiner

Holly Rickman

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1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2,5-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-2 and 5-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not clear to the examiner where the specification provides support for the newly added limitation directed to “a single thermoplastic composition.” Clarification is requested.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The rejection of claims 1-4, 6-12, and 14-17 under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (U55955181) in view of Oishi et al. (U55936048) and Rogers et al. (U55804626) is withdrawn in view of Applicant's amendments and arguments.

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5. Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. (U55955181) in view of Oishi et al. (U55936048) and Rogers et al. (U55804626).

Peiffer teaches a transparent, biaxially oriented heat sealable polyester film, wherein the film has at least one base layer and at least one outer layer (column 3, lines 45-50 and example 4). Peiffer does not teach the soluble flame retardant requiewmwnr. However, it is noted that Peiffer does teach that the base and outer layers may contain conventional additives, including but not limited to phosphorous based compounds (column 6, lines 49-54). The total thickness of the polyester film of Peiffer is preferably 5-30 microns.

Bearing the above in mind, Oishi teaches a method for preparing a modified polymer resin (title). These polymer resins include polyester such as polyethylene terephthalate (column 17, lines 43-45). Oishi also teaches that in addition to a modified resin additive, an additive such as dimethyl-methylphosphonate (DMMP) may be added to a resin to provide that resin with flame retardant properties (column 21 lines 4-11). Typically this flame retardant is added in an amount of 5-40% by weight (column 23 lines 47-48).

Therefore it would have been obvious to one with ordinary skill in the art to add a 5-40% of a flame retardant such as DMMP as taught by Oishi et al. to the polyester film of Peiffer.

One would have been motivated to make this modification due to the teaching in Peiffer that phosphorous based additives can be added to the film and the teaching in

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Oishi that introducing DMMP (a phosphorous based flame retardant) to a polyester increases its flame resistance. In the instant specification, DMMP is listed as a flame retardant that is soluble in polyesters. Thus, the examiner takes the position that the limitations regarding the flame retardant (i.e. solubility in polyester) are met when DMMP is added to the PET film of Peiffer et al.

However, Peiffer as modified by Oishi still fails to teach the embrittlement requirement of claim 19 and the addition of a hydrolysis stabilizer as required by claim 22.

With respect to this deficiency, Rogers et al. teaches a polyester composition that comprises 95-99.90% by weight of a polyester, and 0.1-5.0% by weight of one or more polymeric carbodiimides (column 2, lines 34-50). Rogers et al. teaches that the carbodiimide acts as a hydrolysis stabilizer, which prevents the catalytic breakdown of polyesters at high temperature (column 7, lines 43-49). In a specific embodiment, Rogers et al. manufactures a PET film that contains 2% by weight of a carbodiimide known as Staboxal M (2, 2', 6,6'7 tetraisopropyldiphenyl carbodiimide). This PET film, when exposed to temperatures of 121 C for 9 days maintained at least 50% of its initial tensile strength (see examples). The examiner interprets this retention of tensile strength as an indicator that the PET film of Rogers et al. has not "embrittled" after 9 days at a temperature over 100 degrees C.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to add 0.1-5% by weight of a hydrolysis stabilizer as taught by Rogers to the polyester film taught by Peiffer as modified by Oishi.

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One would have been motivated to make this modification in view of the fact that the polyester film of Peiffer is heat sealed at relatively high (110 degrees C) temperature and the teaching in Rogers that adding a hydrolysis stabilizer prevent catalytic breakdown of polyesters at high temperature.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to add 5-40% of a flame retardant such as DMMP as taught by Oishi et al. and 0.1-5% by weight of a hydrolysis stabilizer as taught by Rogers to the outer layer of the polyester film of Peiffer.

One would have been motivated to make these additions for the reasons set forth above for each component and in view of the teaching in Peiffer that the additives can be added to both the base and outer layers.

Regarding the requirement that the material pass the requirements for construction material classes B2 and B1 to DIN 4102, the examiner takes the position that this property will flow naturally from the combination of Peiffer with Oishi and Rogers as set forth above. This combination results in a polyester film having substantially the same structure and composition as that of the instantly claimed polyester film. Thus, it is logical to believe that this limitation is met.

Claim 19 requires a transparent biaxially oriented film *comprising polyester* consisting of polyethylene terephthalate. The examiner notes that the biaxially oriented polyester of Peiffer comprises three layers, wherein the innermost layer is formed from polyethylene terephthalate (PET) (i.e., a polyester consisting of polyethylene terephthalate).

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With respect to claim 20, the examiner maintains that the composition taught by the prior art as detailed above is substantially the same as that disclosed and claimed by Applicant. As such one of ordinary skill in the art would expect that it would exhibit the claimed properties.

With respect to claim 21, the examiner maintains that the composition taught by the prior art as detailed above is substantially the same as that disclosed and claimed by Applicant. As such one of ordinary skill in the art would expect that it would exhibit the claimed properties.

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

6. The rejection of claims 5 and 13 under 35 U.S.C. 103(a) as being unpatentable over Peiffer as modified by Oishi and Rogers as applied above, and further in view of Murschall (DE19630599) is withdrawn in view of Applicant's amendments and arguments.

***Response to Arguments***

7. Applicant's arguments filed 3/3/05 have been fully considered but they are not persuasive with respect to claims 18-22.

Applicant argues that US 181 requires the presence of ethylene 2,6- naphthtlate (EN) and the present claims exclude this unrecited element. The claim language of claims 18-22 does not exclude unrecited polymer components (i.e., claims are not limited to a single thermoplastic composition consisting of PET or PBT as required by claim 1). Claims 18-20 recite a film "comprising polyester" and claim 22 merely comprises a "thermoplastic."

Applicant argues that the examiner has used impermissible hindsight in combining the references of record. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, Applicant maintains that it was unexpected that a polyester film having the recited thickness would incorporate an organic phosphorus compound alone to provide sufficient flame retardancy to meet UL 94 VTM-0. There is no evidence of record to support such a position. As such, a claim of unexpected results cannot be fully evaluated by the examiner.



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***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is **(571) 272-1514**. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on **(571) 272-1284**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Holly Rickman", with a stylized flourish at the end.

Holly Rickman  
Primary Examiner  
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